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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SLOMSKI, REBECCA

ART UNIT

PAPER NUMBER

2877

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,160	Applicant(s) GLUECK, STEFAN	
	Examiner REBECCA C. SLOMSKI	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/15/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims **1-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. With respect to claims **1-12**, where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “size” in reference to the changing light first in claim 1 is used by the applicant to mean quantity, amount or intensity, while the accepted meaning is a physical magnitude as described in the specification (page 9, 2nd full

paragraph). The term is indefinite because the specification does not clearly redefine the term.

2. With respect to claims **4** and **5**, the limitation “at least one second portion of the light” and “at least two of the second portions of the light” in line 4 lacks sufficient antecedent basis. Claim 4 recites the limitation “at least one second portion of the light”, however there is no antecedent basis for a second portion of light, or suggestion that the light has two portions at all. The meaning of two of the second portions is additionally unclear in the claim language.
3. With respect to claim **5**, the limitation “strike the measuring edge at another location” is unclear. The claim is unclear as to “another location” than what first location. Clarification is required.
4. With respect to claim **8**, it is unclear to the examiner and not clearly defined in the specification how a first portion of the light strikes the first sensor and with the second portion strikes the second sensor. Page 10 of the specification seems to describe a reference sensor that collects portions of a first portion and a second portion

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1-6** and **11-13** are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer et al. U.S. Patent #5,983,725.

5. With respect to claim 1, Fischer discloses a tactile pressure sensor comprising:

- At least one sensor reacting to the changes of at least one position of at least one body edge of a component (Abstract)
- Measuring device has at least one light source, light emanating from the light source, (Figure 1, electroluminescent foil 1)
- At least one measuring edge that is fixed in relation to the body edge (Figure 1, lumen 3, hollow cylinder 2)
- The measuring edge varies its position of the by comparison with the light at least from an initial position (Abstract)
- A portion of the light that has been changed in size by changes in the position by comparison with the initial position of the measuring edge strikes the sensor without impediment (Abstract)

It should be noted that the limitation language "it being possible for....with impediment" does not define a positive limitation on the claim but only requires the ability to so perform.

It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138

6. With respect to claim **2**, Fischer discloses all of the limitations as applied to claim 1 above.

In addition, Fischer discloses:

- The measuring edge is the body edge (Figure 1, lumen 3 and hollow cylinder 2)

7. With respect to claim **3**, Fischer discloses all of the limitations as applied to claims 1 and 2 above. In addition, Fischer discloses:

- The body edge delimits a variable passage that passes through the component and through which the portion of the light strikes the sensor (Figure 1, hollow cylinder 2, Abstract)

8. With respect to claims **4** and **5**, Fischer discloses all of the limitations as applied to claim 1 above. In addition, Fischer discloses:

- A first portion of the light strikes the sensor without impediment (Claim 1)
- At least one portion of the second portion of the light strikes at least the measuring edge (Claim 1)
- At least two of the second portions of the light respectively strike the measuring edge at another location

- It being possible for the first portion and the second portion of the light to be changed in size relative to one another by changes in the position of the measuring edge from the initial position (Col.2, L 7-21)

It is inherently understood that a portion of the light travels through the lumen to the detector and as the lumen closes, some of the light strikes the edge at various locations rather than transmitting through.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The limitation "the position of the measuring edge varied from the initial position by comparison with the light at the same time" does not limit the structure of the measuring device.

It should be noted that the limitation language "it being possible for....from the initial position" does not define a positive limitation on the claim but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138

9. With respect to claim 6, Fischer discloses all of the limitations as applied to claim 1 above.

In addition, Fischer discloses:

- The light source and the sensor are situated opposite one another and a portion of the light strikes the measuring edge between the light source and the sensor (Figure 1)

10. With respect to claims **11** and **12**, Fischer discloses all of the limitations as applied to claim 1 above. In addition, Fischer discloses:

- The measuring device has at least one light guiding medium with the aid of which at least portions of the light are guided into the measuring device (Figure 1, flexible light conductor 6)
- The light guiding medium is a fiber optic cable (flexible light conductor = fiber optic cable, Col.3, L 27-33)

11. With respect to claim **13**, Fischer discloses all of the limitations as applied to claim 1 above.

Fischer doesn't specifically disclose the component is assigned to at least one rotary and/or linear bearing.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Assigning the component to a rotary and/or linear bearing does not define a patentable limitation since the measuring device structure would not change and is not dependent upon the application of the component being measured.

Claims **1**, **8**, and **10** are rejected under 35 U.S.C. 102(b) as being anticipated by Kugler et al. U.S. Patent #4,685,804.

12. With respect to claim 1, Kugler discloses an apparatus for measurement of the movement of a body comprising:

- At least one sensor reacting to the changes of at least one position of at least one body edge of a component (Figure 1, detector 29)
- Measuring device has at least one light source, light emanating from the light source, (Figure 1, laser 15, beam 17)
- At least one measuring edge that is fixed in relation to the body edge (Figure 1, measurement edge 9)
- The measuring edge varies its position of the by comparison with the light at least from an initial position (Abstract)
- A portion of the light that has been changed in size by changes in the position by comparison with the initial position of the measuring edge strikes the sensor without impediment (Abstract)

It should be noted that the limitation language "it being possible for....with impediment" does not define a positive limitation on the claim but only requires the ability to so perform.

It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138

13. With respect to claim 8, Kugler discloses all of the limitations as applied to claim 1 above.

In addition, Kugler discloses:

- A first portion of the light from the light source strikes the sensor without impediment (impediment = not hitting measuring edge, Figure 1, measurement beam 11)
- At least one second portion of the light from the light source strikes at least the measuring edge (Figure 2, measurement beam 11')
- The first portion and the second portion are changed in size relative to one another by deviations in the position of the measuring edge from the initial position (Abstract)
- The first portion and the second portion of the light striking the second sensor at least partially in a fashion equaling the initial state in size and thus independently of the changes in the position (Figure 1, reference beam 13 contains portions of 11 and 11' before being split, detector 31)

14. With respect to claim 10, Kugler discloses all of the limitations as applied to claim 1 above.

In addition, Kugler discloses:

- A first portion of the light from the light source strikes the sensor without impediment (impediment = not hitting measuring edge, Figure 1, measurement beam 11)
- At least one second portion of the light from the light source strikes at least the measuring edge (Figure 2, measurement beam 11')

- The first portion and the second portion are changed in size relative to one another by deviations in the position of the measuring edge from the initial position
(Abstract)
- The reference light unchanged in comparison to the initial position of the reference light source strikes the sensor in alternating sequence with the first portion of the light source, changed relative to the initial position (Figure 1, reference beam 13, Abstract)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kugler et al. U.S. Patent #4,685,804.

15. With respect to claim 7, Kugler discloses all of the limitations as applied to claim 1 above.

In addition, Kugler discloses:

- A reflector situated opposite the light source, the reflector reflecting the light, at least intermittently and at least partially to the sensor (Figure 1, mirror 21)

However, Kugler fails to disclose the light striking the measurement edge at least partially between the light source and the reflector. It would have been obvious to one of ordinary skill in the art at the time the invention was conceived to use a reflector on the opposite side of the measuring edge since the use of reflectors in order to control the geometry of beams has been well known in the art. It would be desirable to have a reflector on the other side of the measuring edge in order to add flexibility in directing the light beams to the proper or convenient location of a sensor.

16. With respect to claim 9, Kugler discloses all of the limitations as applied to claims 1 and 8 above. In addition, Kugler discloses:

- A control device connected to the second sensor (Col.3, L 7-14)

However, Kugler fails to disclose a control device connected to both the light source and the second sensor. It would have been obvious to one of ordinary skill in the art at the time the invention was conceived to have a control device connected to the second sensor and the light source since calibration can be performed and the light source properly controlled as to not over-saturate or under-saturate the sensors. A feedback loop that connects a reference detector and a light source is well known in the art as evidenced by U.S. Patent # 6,222,624.

Citation

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Konicek et al. U.S. Patent # 5,309,223 discloses a laser based semiconductor lead measurement system comprising two beams that intersect the measurement edge and are detected intermittently by sensors
- Kaufmann et al. U.S. Patent #4,812,635 discloses an optoelectronic displacement sensor comprising two photodiodes and a light beam that is partially overlapped in order to measure the displacement of the edge

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REBECCA C. SLOMSKI whose telephone number is (571)272-9787. The examiner can normally be reached on Monday through Thursday, 7:30 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571-272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory J. Toatley, Jr./
Supervisory Patent Examiner, Art Unit 2877
31 March 2008

Rebecca C. Slomski
Patent Examiner

rCS